**Salient Characteristics for X-LIMS "or equal" Laboratory Information Management System (LIMS)**
**Combo Synopsis/Solicitation Request for Quotation (RFQ): NNG168961Q**

# SPECIFICATIONS SUMMARY
## Unique Product Features

LIMS shall be a full-featured Laboratory Information Management System (LIMS) integrated into the Windows environment and is run through a Microsoft Internet Explorer browser with an absolute client zero-footprint (no downloads and/or software must be pushed to the client PC to run the application) LIMS applications and functionality are all included with the base licensing cost; there is no module pricing.

## Data Model Considerations

LIMS shall be capable of collecting unique data parameters at multiple levels (Sample Group, Sample, Test or Batch, at a minimum) without having to make any database data model changes. LIMS shall track an unlimited number of limit categories defined by the customer in the system (examples include detection limits, regulatory limits, reporting limits, accuracy limits) without data model changes. LIMS shall allow the laboratory the ability to define an unlimited number of specific workflows for Sample Groups, Samples, and Tests (at a minimum) without the need for any database data model changes. LIMS shall provide the ability to filter data easily and allow the saving of data filters for each user.

## User Interface

Data shall be displayed in list or tabular form on all pages allowing end-users the ability to filter and sort the data that is desired.
Users shall be able to define custom queries or filters for list screens that can be saved for later access

## Workflow Management

LIMS shall have a configurable workflow engine so that new workflows may be created and existing ones can be modified by the LIMS administrator as needed. The workflow engine addresses Sample Groups, Samples, and Tests.

## Test Configuration

Each test shall be capable of having a unique workflow defined by the LIMS administrator in the system.

## Sample Login
LIMS shall allow for groups of samples coming into the lab to be logged in quickly. Sample test assignment during login has the ability to assign 1 or more tests to 1 of more samples at the same time.

## Sample Scheduling
Scheduled samples shall be automatically logged or pre-logged into the system based on a re-occurring schedule that can be defined and configured by the LIMS administrator. LIMS shall allow for multiple schedules to be created in order to schedule sample login at different frequencies.

## Analytical Batch Management
LIMS shall be capable of grouping collections of samples, controls, and standards into unique batches used to simulate a laboratory worksheet or as an auto-sampler load list. The batch incorporates the QA/QC testing in the laboratory and includes the capability for dependency of QA/QC samples on other samples in the batch such as spikes and duplicates. A sample may belong to one or more batches in the system as it goes through its workflow (i.e., prep batches, analytical batches). In order to use existing bench worksheets, batch data has the ability to be exported from LIMS to Excel and LIMS has the ability to import data back from the completed worksheet to LIMS. LIMS shall allow the laboratory the ability to configure the LIMS mappings for each unique bench worksheet with a simple easy to use GUI tool. Each batch in LIMS shall have the ability to require unique, customer – defined parameters that are used to track data specific to the individual batch. These batch parameters should do require the need to change the data model in the database.

## Data Entry
LIMS shall be able to track raw data, calculated data, and corrected data for a given parameter that has been modified by any calculations and/or rounding. LIMS shall be able to round results according to EPA guidelines. LIMS shall be able to allow users to enter data for a batch of samples in a grid that contains all the test runs in a batch with associated QC. The system shall allow for programmatic or user assigned result qualifiers. The system locks test results once approved in specific workflow milestones. Programmatic actions when results are outside of limits are able to be performed by the LIMS (example: BDL for any result that is below detection limits). The system shall be able to populate default parameter results in data entry input boxes.

## Quality Control Tracking
LIMS QC charting and graphing capabilities include graphic capabilities and be able to export the data to Excel. LIMS shall have the ability to do QC charting for accuracy and precision on QC samples.

## Standard, Reagent, & Consumable Inventory

The application shall be capable of maintaining an inventory of laboratory items like laboratory reagents, chemicals, and consumables within LIMS. LIMS shall be capable of comparing lot test results against specifications and controls provided by the manufacturer as well as comparison to in-house limits. LIMS is able to easily link inventory items to testing results in order to maintain complete traceability back to lot numbers and manufacturer information. LIMS shall be able to track in-house created laboratory standards (serial dilutions and/or complex multi component standards) and easily link them to testing results.

## Data Reporting

LIMS shall be able to use MS SQL Server Reporting Services as the main reporting tool Reports are able to be exported to MS Word, MS Excel, or PDF formats. LIMS is able to integrate in regulatory reports that are in Excel format.

## LIMS Security

All user levels shall be capable of being created at the discretion of laboratory management within the LIMS.
Administrators shall be able to control access to menu items, screens, and individual fields via the LIMS security settings
Administrators shall be able to apply filters to restrict viewable data for users based on LIMS security settings.

## Document traceability

LIMS shall have the ability to attach outside supporting documents to various LIMS objects, including Projects, Sample Groups, Samples, Tests, and Batches. LIMS shall have the ability to include test reference documents, such as SOPS, that can be associated with the tests and referenced by an analyst. The attached documents are version controlled upon upload and will record at minimum the user that uploaded the document, as well as the date and time it was uploaded.

## Auditing

Every screen in the system shall be capable of auditing. This includes data entry screens, as well as administration screens. The fields requiring auditing in the system can be defined and configured by the LIMS administrator and do not require custom code. LIMS, at minimum, shall record the user making the change, the data that was changed, and the data and time of the change. The system shall be able to audit the deletion of records.

## Onsite User Admin Training -4 days total

For pricing purposes the location of 4 day Onsite User Admin Training is Wallops Flight Facility, Wallops Island, VA.

**Note: For all proposed "or equal" products the Offeror shall provide supporting product documentation that substantiates any "or equal" claims at time of response due date and time for Technical Evaluation. Failure to provide supporting documentation at time of Offeror submission for proposed "or equal" products shall render the proposed quotation unresponsive and unacceptable for award.**